



MAURITIUS

ANNUAL REPORT  
ON THE  
MEDICAL & HEALTH  
DEPARTMENT

1926



[Kink T B.]

Acty, P. M. 1926





COLONY OF MAURITIUS

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Annual Medical and Sanitary Report for 1926

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SIR,—I have the honour to submit, for the information of His Honour the Officer Administering the Government and for transmission to the Right Honourable the Secretary of State, the Medical Report on the Health and Sanitary Conditions of the Island for the year 1926.

I have the honour to be,

Sir,

Your obedient servant,

J. BALFOUR KIRK,  
Acting Director.

The Honourable  
The Colonial Secretary.

*With the Compliments*

*of the*

*Director, Medical and Health Department*

*Colony of Mauritius*





HOSPITALS AND DISPENSARIES ARE SHOWN IN THE MAP BY NUMBERS AS INDICATED ABOVE

<i>Port Louis</i>		<i>Flacq</i>		<i>Plaines Wilhems</i>	
Civil Hospital	... 1	Flacq Hospital	...11	Curepipe	...26
Eastern Suburb	...	Trou d'Eau Douce	...12	Vacoas	...27
(St. Francois)	... 2	Riviere Seche (Bel Air)	13	Victoria Hospital	...
Western Suburb	...	Sebastopol	...14	(Quatre Bornes)	...28
(Bell Village)	... 3	St. Julien	...15	<i>Grand Port</i>	...
<i>Pamplemousses</i>	...	Brisee Verdière	...16	New Grove	...29
Terre Rouge	... 4	<i>Moka</i>	...	Plaine Magnien	...30
Pamplemousses	...	Moka Hospital	...17	Mahebourg Hosp.	...31
(Village)	... 5	Pailles	...18	L'Escalier	...32
Long Mountain	...	St. Pierre	...19	Bois des Amourettes	...33
(attached to hospital)	6	Quartier Militaire	...20	Grand Sable	...34
<i>Riviere du Rempart</i>	...	<i>Black River</i>	...	<i>Savanne</i>	...
Poudre d'Or	...	Petite Riviere	...21	Souillac Hospital	...35
(attached to hospital)	7	Bambous	...22	Riviere des Anguilles	36
Ravin	... 8	Tamarin	...23	Chemin Grenier	...37
Grand Gaube	... 9	Gde Riviere Noire	...24	Baie du Cap	...38
Grand Bay	...10	Case Noyale	...25		

## ERRATA

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- p. 3. "The rate for 1923 " should read the rate for 1925.
- p. 5. last line, for page 3, read page 2.
- p. 6. para. 20, for page 8 supra, read p. 4 supra.
- p. 11. para. 30, for page 14, read p. 6. For 37,391, read 30,391.

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## COLONY OF MAURITIUS

# ANNUAL MEDICAL AND SANITARY REPORT

### FOR THE YEAR ENDING 31st DECEMBER 1926

#### I.—Administration

##### 1. Staff on 31st December, 1926.

Director : T. B. Gilchrist M.D., M.B.C.M.; D.P.H.; F.R.F.P. and S. (*on leave—Dr. A. G. Masson acting from 2.9.26*).

Medical Assistant to the Director *vacant*.

Medical Officer of Health, Port Louis : J. Balfour Kirk, M.B. Ch. B.; D.P.H.; D.T.M. & H. (*on leave, Dr. E. Rama acting from 13.10.26*).

Medical Officer of Health, Plaines Wilhems : F. J. R. Momplé, M.B.C.M.; D.P.H.

Superintendent Bacteriological Laboratory and Government Analyst, L. G. Barbeau, M.B.C.M., D.P.H.

Sanitary Warden (Northern Districts) : A. C. d'Arifat, L.R.C.P.; M.R.C.S.

Sanitary Warden (Southern Districts) : A. G. Masson, M.B.; Ch. B.

Port Health Officer and Medical inspector of Port Louis Schools : F. L. Keisler, L.R.C.P. & S.; L.F.P. & S.; D.P.H.

Superintendent, Mental Hospital : J. D. Dyson, M.B.B.S.; D.P.M.; M.R.C.S.; L.R.C.P.

Assistant Superintendent, Mental Hospital (*vacant*) Dr. E. Portal, L.R.C.P. & S. *re-employed provisionally from 1.3.25*.

Superintendent, Civil Hospital : F. A. Rouget, O.B.E., M.D.

Resident Surgeon, Civil Hospital : G. Seneque, M.D.

Superintendent, Victoria Hospital (*vacant*) Dr. Y. Cantin *temporarily*.

Resident Medical Officer, Victoria Hospital : W. R. Dupré, L.R.C.P. & S. (*on leave replaced by Dr. I. Humbert up to 30.11.26. and subsequently by Dr. R. Laventure.*)

Police and Prison Surgeon, Port Louis, and District (Government) Medical Officer and Sanitary Authority for Black River : Ph. de Chaumont, M.B.B.S.; M.R.C.S.; L.R.C.P.

Government Medical Officer, Plaines Wilhems : E. F. Bour, L.R.C.P.; M.R.C.S.; L.S.A. (*on leave from 30.8.26, Dr. L. Maingard acting*).

Tuberculosis and Venereal Diseases Medical Officer : D. D. Anderson, L.S.A.; M.R.C.S.; L.R.C.P.; D.T.M. & H.

Medical Officer i/c Hookworm Branch : C. Camal Boudou, M.B., Ch.B.

#### DISTRICT MEDICAL OFFICERS

(Government Medical Officers having charge of a District Hospital and of all the Dispensaries in their district).

Pamplemousses : J. H. André, L.R.C.P.; M.R.C.S.

Rivière du Rempart : S. Piarroux, L.R.C.P. & S.; L.F.P. & S.

Flacq : H. G. Lamberty, L.R.C.P. & S.; L.F.P. & S.

Grand Port : A. Y. Cantin, M.R.C.S.; L.R.C.P.; D.T.M. (*filling temporarily the post of Medical Superintendent, Victoria Hospital; Dr. I. Humbert acting*).

Savanne : B. A. Sinnatambou, L.R.C.P. & S.; L.F.P. & S.

Moka : G. A. Leclezio, M.R.C.S.; L.R.C.P.; D.P.H.

During the year under review 3 officers were dismissed (a Storekeeper and Accountant; a Sanitary Guard, and a Hospital Warder).

##### 2. LIST OF ORDINANCES AFFECTING PUBLIC HEALTH ENACTED DURING THE YEAR.

Number	Title
No. 2 of 1926.	To amend the Public Health Ordinance, 1925.
No. 27	"
No. 7	" To repeal the Sanitary Rate Ordinance, 1924.
No. 21	" To amend the Opium (Consolidation) Ordinance, 1924
No. 26	" To secure the training of midwives in the Colony and to regulate their practice.
No. 33	" To amend the Notification of Births Ordinance, 1925.
No. 37	" To validate certain charges levied for night soil service in the Town of Curepipe.
No. 38	" To amend the Building Consolidation Ordinance, 1915.



## FINANCIAL

3. The revenue of the Colony for the year 1926 was	...	...	Rs. 14,609,915
The expenditure on Medical and Sanitary Services out of revenue			
was	...	...	2,289,417
The expenditure on Medical and Sanitary Services from the			
Improvement and Development Fund was	...	...	41,636

## II.—Public Health

## GENERAL DISEASES

4. The year has been noteworthy in respect to the light thrown upon the prevalence of Tuberculosis in the Colony. From the report of the Tuberculosis Medical Officer it would appear that the statistics formerly published regarding Tuberculosis gave quite an inadequate idea of the extent of the infection. During the year the Tuberculosis Officer did not have the opportunity of collecting exact figures, but the rapid increase in the number of persons attending the Tuberculosis dispensary and found to be suffering from the disease shows that its prevalence has been greatly under-estimated in the past.

The clinical forms of the infection resemble those observed in Europe. There is seldom seen the fulminating septicæmic type so characteristic of the disease in certain parts of the tropics, especially in areas where the indigenous population are just coming into contact with the European. Here it would appear that the infection is old-standing, and that the population have thereby attained a certain degree of general immunity to the disease, which, in consequence, assumes the chronic, pulmonary type. The surgical forms of the infection are comparatively rare.

During the previous year all forms of Tuberculosis were considered infectious or contagious diseases under Ordinance No. 49 of 1925. In 1926, Government Notification No. 153 was published for general information. This notification contained Regulations designed to prevent persons suffering from active tuberculous infection of the respiratory tract being employed in the preparation or handling of food intended for sale and consumption by man, and it contained a special reference to the milk trade. It was hoped that by this means one avenue for the dissemination of the disease would be closed. Unfortunately, the publication of the regulations resulted in the concealment of cases and a marked falling off in the numbers of persons attending at the Tuberculosis Dispensary. And in is to be feared that this state of affairs will continue until an enlightened public opinion puts an end to it.

In addition to his dispensary practice, the Tuberculosis Officer was actively engaged in disseminating facts about tuberculosis in the Colony and he has been successful in stimulating various organised bodies to co-operate with him in the work. The Chinese Community have provided a building in Port Louis for a clinic reserved for Chinese. The methods used in propaganda work have been lectures, cinema displays and press articles and the distribution of pamphlets and posters. 41 cinema displays were given during the year—21 of these being held in village streets. The Agricultural Exhibition held in October provided the opportunity for holding 15 displays, including the exhibition of microscopic preparations of Tubercle Bacilli, which formed the theme of simple talks on the prevention and cure of the disease.

The Tuberculosis Officer submitted a scheme for dealing with the disease in the Colony. The scheme is under consideration.

5. The general health of the Colony has been good, and no epidemics were recorded during the year. The death rate is slightly higher than that of the previous year (25.3 o/oo compared with 24.1o/oo), but it was considerably below the figure for the quinquennial period 1921–25 (31.1o/oo). The deaths from Organic Disease of the Heart were 15 higher than for 1925 (121 compared with 106) while the hospital admissions for malignant disease numbered 123 as compared with 69 in 1925. Diseases of the kidney were responsible for 571 deaths, as compared with 494 in 1925.

## COMMUNICABLE DISEASES

## INSECT-BORNE DISEASES.

## MALARIA

6. Four species of *Anopheles* are known to exist in the Colony, viz ; *A. costalis*, *A. funestus*, *A. maculipalpis* and *A. mauritianus*. The principal transmitter of malaria is *A. costalis*.

It is possible to record only the number of patients suffering from malaria in hospitals or applying for treatment at dispensaries, and the number of deaths certified by Medical Practitioners as being due to this disease.

The total number of admissions to hospital of patients suffering from Malaria and Hypertrophy of the Spleen was 2,484, an increase of 235 over the figure for the previous year. The case mortality was 1.8%.



The following tabular statement shows the admissions for Malaria and Hypertrophy of the Spleen, and deaths ascribed to both conditions during this and the preceding year.

INSTITUTIONS	MALARIA				HYPERTROPHY OF SPLEEN			
	Admissions		Deaths		Admissions		Deaths	
	1925	1926	1925	1926	1925	1926	1925	1926
Civil Hospital ...	627	617	15	26	71	64	...	...
Port Louis Prison ...	18	21	...	1	...	1	...	...
Long Mountain Hospital ...	118	173	1	...	27	18	...	2
Poudre d'Or ...	434	493	6	8	...	...	...	...
Flacq Hospital ...	92	68	1	1	10	18	...	1
Mahebourg ...	157	249	1	3	8	...	...	...
Souillac ...	159	204	...	1	8	4	...	...
Victoria ...	277	357	1	3	37	19	...	...
Beau Bassin Prison ...	95	102	..	...	...	...	...	...
Moka Hospital ..	57	41	...	...	...	..	...	...
Mental Hospital ...	27	25	2	...	19	...	...	...
Total ...	2,061	2,350	27	43	180	124	...	3

The three common species of malarial parasites are present. The following table, summarising the blood survey of the school children of certain districts, shows that the species are generally distributed throughout the Colony. The preparations used for the determination of the parasites are thin films stained by the Romanowsky method.

District	No. of pupils examined	No. of pupils infected	Plasmodium falciparum	Plasmodium vivax	Plasmodium malariae	No. of pupils stated to have taken quinine at least once in the 8 days previous to examination	Percentage showing parasites
Port Louis ...	1,578	92	28	36	29*	1,551	5.8
Pamplemousses ...	439	19	8	5	6	274	4.7
Rivière du Rempart...	554	31	10	8	13	497	5.5
Flacq ...	321	24	7	9	8	321	7.4
Grand Port ...	989	33	11	10	12	989	3.3
Savanne...	533	10	1	5	4	533	1.8
Black River ...	358	27	12	8	8*	204	7.5
Moka ...	256	22	10	8	5*	211	8.5
Total ...	5,028	258	87	89	85	4,580	Mean 5.1

The monthly hospital admissions range in the following descending order: March, April, February, May, June, January, December, July, November, September, October and August.

In the public dispensaries a total of 21,430 cases of Malaria received treatment compared with 17,578 for the previous year. This may be due to two factors (a) closing of certain estate hospitals in the Colony, and (b) increase in the amount of infection during the year. A third factor may also be operative, i.e. the diminished prosperity of the agricultural population.

The total number of deaths from Malaria, 1811, is equivalent to a death rate of 4.60/oo. The rate for 1923 was 4.150/oo.

A good guide to the Malarial prevalence in the districts is the examination of the spleen rates in school children. On an average, 16,141 children are examined half yearly by the Medical Officers concerned, with the following result.

District	1925	1926
	%	%
Port Louis ...	5.49	3.9
Pamplemousses ...	9.7	11.34
Riviere du Rempart ...	13.5	10.95
Flacq ...	19.2	26.56
Grand Port ...	18.0	22.71
Savanne ...	12.5	17.23
Black River ...	58.6	59.1
Plaines Wilhems ...	1.27	1.47
Moka ...	4.05	3.29

It should be noted that worm infection of children is practically universal in the Colony, and this may tend to raise the splenic indices. As the infection is practically uniformly distributed, however it does not affect the statistics for the Districts although it would prevent accurate comparison with the figures for other countries.

\* Double infections in one case.



## FILARIASIS.

7. The prevalence of filariasis in the Colony has not yet been worked out, but the infection seems to be evenly distributed along the coastal lowlands. *Filaria bancrofti* is the parasite at work. Daruty de Grandpré and d'Emmerez de Charmoy, in 1900, recorded that they had followed the evolution of this worm in *Culex anxifer* (*C. fatigans*).

## PLAGUE.

8. The following table shows the number of plague cases notified to the Sanitary Authority since 1921.

Year	Cases	Deaths	Case mortality %
1921 ...	375	297	79.2
1922 ...	98	75	76.5
1923 ...	139	118	84.8
1924 ...	161	144	89.4
1925 ...	74	65	87.8
1926 ...	46	41	89.1

These figures seem to show that while the disease is gradually being brought under control its virulence is increasing. The figures for the case mortality, however, in all probability give one an exaggerated impression of the virulence of the disease. Owing to the fact that in Port Louis officers of the Department make a post-mortem examination of every cadaver with a view to determine whether the cause of death had been plague or not, few cases of death from the disease are undetected. On the other hand concealment of plague patients still occurs, so that it is probable that a certain number of such persons recover and are never notified to the Sanitary Authority at all. Since the case mortality rate is the percentage number of fatalities occurring amongst persons infected with the disease, any shortage in the number of total cases notified to the Sanitary Authority will produce a corresponding increase in the case mortality rate provided that the figures for the deaths are reasonably nearly accurate.

Plague in Mauritius is practically confined to Port Louis where it smoulders in the rats all through the year. From August to February in each year cases occur in human beings, and during this time the disease may assume epizootic and epidemic forms.

## FLEA SURVEY.

During 1925 the M.O.H. Port Louis made a collection of fleas taken from living healthy rats caught in Port Louis. The flea index was 3.2 fleas per rat in rats taken at random in the town. A special examination of grain-store rats was also made and these showed a flea index of 7.4.

The fleas were identified by the Authorities of the British Museum and I should like here to record my appreciation of the courtesy and readiness with which the Museum Staff undertook the work.

The figures are as follows :—

* <i>Xenopsylla cheopsis</i> ...	7,271
„ <i>braziliensis</i> ...	658
<i>Echidnophaga gallinaceus</i> ...	9
Total ...	7,938

The rats from which these fleas were collected were *R. rattus alexandrinus*: the rat most commonly occurring in Port Louis.

## TYPHUS FEVER

9. Typhus fever does not appear to occur in Mauritius.

## (B).—INFECTIOUS DISEASES

## NOTIFIABLE INFECTIOUS OR CONTAGIOUS DISEASES (EXCLUSIVE OF PLAGUE)—1926

Diseases	Port Louis	Pamplemousses	Rivière du Rempart	Flacq	Grand Port	Savanne	Moka	Black River	B. Bassin-Rose Hill-4 Bornes	Phoenix-Vacoas	Curepipe	Total
Enteric Fever ...	28	3	8	4	19	12	11	...	13	3	7	108
Puerperal fever and puerperal septicæmia ...	10	...	1	3	...	...	...	1	12	...	5	32
Erysipelas ...	12	1	3	5	1	2	...	...	4	1	2	31
Diphtheria ...	1	2	...	1	3	...	5	...	27	3	6	48
Leprosy ...	...	...	...	6	...	4	...	...	...	...	...	10
Measles ...	1	...	...	...	...	...	...	...	...	...	...	1
Total ...	52	6	12	19	23	18	16	1	56	7	20	230

\* *N. astia* appears to be absent from the Colony.



## SMALL POX

10. There has been no small-pox in the Colony since 1913. 13,407 children were vaccinated during 1926 by the public vaccinators. The data are given hereunder :—

Successful vaccinations on 1st attendance	...	...	12,178
„ „ 2nd and subsequent attendances	...	...	1,102
			<hr/> 13,280
Unsuccessful vaccinations	...	...	112
Vaccinations in which the results could not be ascertained	...	...	15
		Total	<hr/> 13,407

The proportion of vaccinated children to live births is 86.38%, compared with 67.7% for 1925. The increase in the number of vaccinated children is a very good thing for the Colony and the proportion of vaccinated children to total births is reasonably good, taking into consideration the local conditions. It is still too low however, when one reflects upon the amount of communication which exists between Mauritius and countries where small-pox is still rife. In addition, when it is considered that the necessity for re-vaccination is not yet generally recognised, it is seen that a comparatively large proportion of the inhabitants of the Colony are only imperfectly protected against the disease.

## ENTERIC FEVER

11. 108 cases of this infection were notified to the Department during the year. 43 of them received Hospital treatment, with a case mortality of 27.9%. In all probability the infection is carrier borne, fly-borne or contracted through the consumption of contaminated comestibles. None of the outbreaks had the appearance of a water-borne infection.

## DIPHTHERIA

12. 48 cases of diphtheria were notified in 1926. Diphtheria appears to bear most heavily on those living in the cooler regions of the Colony. This may be explained by the facts that there are more prosperous families living in Plaines Wilhems than in the other districts, that there are more medical practitioners in that district and that the inhabitants are in a better position to call in professional aid in case of illness.

## THE PUERPERAL STATE, PUERPERAL SEPTICÆMIA AND FEVER

13. 229 deaths were registered as being due to the puerperal state.

The deaths are classified as under :—

Uncontrollable vomiting	...	2
Puerperal haemorrhage	...	8
Other accidents of child birth	...	169
Puerperal fever	...	26
„ convulsions	...	18
„ embolism	...	1
Albuminuria of pregnancy	...	3
Abortion	...	2

16 cases of puerperal septicaemia, of which 6 proved fatal, were treated in hospital—a case mortality of 37.5%.

Child birth in 1926 gave a mortality rate of 14.7 ‰. In more homely terms, this means that out of every thousand pregnant women, 14.7 on an average were doomed to die as the result of what should be a perfectly normal and uneventful function. This figure is very much too high and it is probably much smaller than it would be if corrections could be made for cases of puerperal septicaemia occurring after abortion. It is probable that these cases are seldom recognised because they are most likely to occur among the agricultural classes who seldom summon professional aid for cases of “fever.” The two conditions, malaria and puerperal septicaemia may run concurrently, the septicaemia following upon the abortion caused by the malarial paroxysm.

Semi-starvation during pregnancy, chronic malaria and ankylostomiasis with their attendant anaemias, and lastly, but by no means least, the horrid practices of certain types of ignorant midwife all contribute their quota to this unsatisfactory state of affairs.

## MEASLES

14. Only one case of this disease was notified during the year.

## ERYSIPELAS

15. 31 cases were notified, compared with 25 in 1925. 7 deaths were registered.

## TUBERCULOSIS

16. This has already been dealt with (see page 3).

1 p. 2)



## LEPROSY

17. Twenty cases of this disease were discovered during the year. Concealment is practically invariably practised. Of these 20 cases 16 were of the anaesthetic type, 3 were the tubercular type and 1 was of the mixed type. The districts of origin were: Flacq 8; Grand Port 3; Savanne 2; Black River 2; Plaines Wilhems 2; Pamplémousses 2 and Moka 1.

The Leprosy board examined 21 persons alleged to be suffering from leprosy, with the result that 20 of these persons were recommended for detention.

The treatment being undertaken is bi-weekly injections of E. C. O.\* mixture. The Medical Superintendent the Leper Hospital states that encouraging results are being obtained.

## CHICKEN POX

18. Five cases of this disease were treated at the Civil Hospital, Port Louis, and 1 at Long Mountain Hospital.

## VENEREAL DISEASES

19. The work of the special venereal clinic, inaugurated in 1925, was continued throughout the year. In the first quarter the clinic was held twice weekly for two hours during the afternoon. In April the working time was extended and the clinic worked daily for two hours in the morning (Sundays excepted) during which time the Venereal Officer was in attendance. The clinic was open for general information and routine treatments daily until 5 p.m. The clinic was limited to males.

In July a clinic for female patients was opened in the Civil Hospital; a part of the in-patient wards being screened off for the reception and examination of patients. The Venereal Officer conducted 1 gynaecological examinations there at a fixed hour once weekly.

## C—HELMINTHIC DISEASES

## FILARIASIS

20. This has already been referred to (page 8 supra).

## ANKYLOSTOMIASIS

21. The campaign for the control and relief of Hookworm Infection, begun in 1922 with the cooperation of the International Health Board of the Rockefeller Foundation, was continued by the Medical and Health Department during 1926.

During the month of January operations were still in progress in the Black River District. This, and the Plaines Wilhems district were completed by March 13th. Post-campaigns were then undertaken successively in Moka, Savanne and Grand Port. This work lasted until July when the work was transferred to parts of the Plaines Wilhems district, which for several reasons, could not be undertaken before.

In August the campaign was moved to the district of Pamplémousses. By the close of the year the eleven schools in the district had each received two treatments and preparations for a second examination were in progress.

The work may be summarised as follows:

Examined	Positive for Hookworm	First treatment	Second treatment	Third treatment	Fourth treatment
34,544	23,283	19,206	1,455	361	153

## SCHISTOSOMIASIS

22. Occasional cases of Bilharzial infection are recorded from time to time. The worm concerned is *S. haematobium*. The local intermediate host has not yet been determined.

VITAL STATISTICS<sup>(a)</sup>

23. The area of Mauritius is 720 square miles, and the estimated population on the 1st January 1926 was 393,708.

The estimated population of the Dependencies on the 1st January 1926 was 8,769.

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\* E. C. O. mixture—Ethyl ester of Chaulmoogric acid 1 c.c.  
Camphor ... 1 grain.  
Olive oil ... 2.5 c.c.

Dr. Muir's original mixture contains, in addition 1 c.c. double distilled creosote. This has not yet been obtained, but steps have been taken to procure it and when it is available the original E.C.C.O mixture will be used.

(<sup>a</sup>) Vital statistics are calculated on the population alive on the 1st January of each year.



The distribution of the population and the density of each District are shown hereunder.

ESTIMATED POPULATION OF MAURITIUS ON 31ST DECEMBER, 1926.

Districts	Area in square miles	General Population			Indian Population			Total Population			Density per square mile
		Males	Fe-males	Total	Males	Fe-males	Total	Males	Fe-males	Total	
Port Louis ...	16	15,960	14,578	30,538	12,026	11,099	23,125	27,986	25,677	53,663§	3,353.94
Pamplemoussée ...	69	3,393	3,239	6,632	16,404	15,084	31,488	19,797	18,323	38,120	552.46
Rivière du Rempart ...	57½	3,134	2,821	5,955	14,307	13,358	27,665	17,441	16,179	33,620	584.70
Flacq ...	115	5,645	5,216	10,861	23,072	21,359	44,431	28,717	26,575	55,292	480.80
Grand Port ...	101	6,803	6,441	13,244	19,937	18,030	37,967	26,740	24,471	51,211	507.04
Savanne ...	93½	3,931	3,733	7,664	14,331	12,709	27,040	18,262	16,442	34,704	371.16
Plaines Wilhems ...	78	16,051	18,678	34,729	25,582	24,323	49,905	41,633	43,001	84,634	1,085.05
Moka ...	89	2,815	2,869	5,684	14,100	12,953	27,053	16,915	15,822	32,737	367.83
Black River ...	101	2,651	2,545	5,196	4,772	4,287	9,059	7,423	6,832	14,255§	141.14
Total...	720	*60,383	60,120	†120,503	‡144,531	133,202	277,733	204,914	193,322	398,236	553. 1

The density of population is high, 553.1 per square mile for the whole Island. The presence of the Capital makes Port Louis the most densely populated District of the Colony, and although, under modern conditions of housing and sanitation, large communities may dwell in restricted areas without detriment to the public health, speaking generally of conditions which exist in older communities, density of population is closely bound up with poverty and other factors detrimental to health, in which case it reinforces these factors and accentuates the insalubrity of the area under consideration. Port Louis, unfortunately, contains in some degree all of the factors militating against the well-being of the people and the density of the population there, while, perhaps exercising some ameliorating effect on the incidence and spread of malarial infection, would certainly promote the rapid extension of other communicable diseases, and favour their occurrence in epidemic form.

#### MARRIAGES

24. 1,479 marriages were celebrated in 1926 as compared with 1,833 in 1925, showing a decrease of 354. This is equivalent to a marriage rate (number of persons married to every thousand of population) of 7.5 o/oo.

#### BIRTHS

25. The total number of births for the year was 15,520 (7,736 males and 7,784 females) 4,988 of these occurred in the General, and 10,532 in the Indian population. The birth rate was 39.4 o/oo.

The District birth-rates (on population as at 1st January of each year) and the five-year mean rates are as follows:—

District	1922	1923	1924	1925	1926	Mean o/oo
Port Louis ...	37.3	39.9	42.9	42.0	39.5	40.46
Pamplemousses ...	36.0	31.0	37.4	39.8	39.2	36.65
Rivière du Rempart...	37.2	32.6	41.2	43.6	41.2	39.22
Flacq ...	32.7	34.3	38.4	42.0	35.4	36.54
Grand Port ...	35.8	36.1	37.0	40.7	38.0	37.51
Savanne...	39.3	39.2	38.9	39.4	34.5	38.88
Plaines Wilhems ...	39.7	39.7	44.0	47.2	44.9	43.95
Moka ...	43.4	42.8	46.7	46.6	40.5	43.16
Black River ...	26.6	27.3	27.6	32.9	33.2	29.42
Whole Colony ...	37.0	36.8	40.4	42.6	39.4	39.29

It is a notable fact that the District of Plaines Wilhems shows that the highest birth-rate. The majority of the well-to-do and intellectual classes of the population reside in Plaines Wilhems and from these figures it would appear that Mauritius is the exception to the general rule that in most civilised communities the wealthy and intellectual elements of the population show the lowest birth-rate. Black River, on the other hand, where the population are in humble circumstances, has the lowest birth-rate for the Island. But there are probably many other factors concerned in the production of this state of affairs; one of which may well be Malaria—a notorious cause of abortion in the earliest months of pregnancy. It will be noted that in the low-lying parts of the Island, where malaria is rife at certain seasons the year, the birth-rate is appreciably lower than in those districts which lie within the 600 feet contour and do not consequently suffer so intensely from the infection.

Another interesting feature of the birth statistics for this year is the proportion of male births to female births.

As a general rule the male births exceed the female births, but in this instance the reverse holds good. It is probably however, only a temporary feature.

\* Excess of males over females in General Population including Chinese: 263.

† General Population excluding Chinese: 111,996; Chinese Population: 8,507.

‡ Excess of males over females in Indian population: 11,329.

§ Black River and Port Louis are the districts in which the population has decreased.



## DEATHS

26. During the year 1926 the total number of deaths was 9,958 (5,174 males and 4,784 females; 2,980 in the General and 6,978 in the Indian population). This number is an increase of 631 over the total deaths of 1925.

The death rate for the Colony was 25.3‰ compared with 24.1‰ for 1925, and with 31.1‰ for the quinquennial period preceding 1926. The month of maximum mortality was March.

The following table shows the district death-rates\* yearly for the period 1922–26 and the average rates for the same period:—

District	1922	1923	1924	1925	1926	Average o/oo
Port Louis ...	42.6	34.1	34.6	26.1	28.0	33.07
Pamplemousses ...	39.0	34.1	30.5	26.5	28.8	31.73
Rivière du Rempart	37.3	27.9	26.8	23.3	25.6	28.17
Flacq ...	35.3	27.8	28.1	24.8	25.7	28.28
Grand Port ...	40.8	34.6	31.0	26.0	29.6	32.33
Savanne ...	29.4	25.7	24.8	24.1	25.4	26.29
Plaines Wilhems ...	23.8	21.0	20.6	19.4	18.4	20.60
Moka ...	32.1	25.8	24.3	21.8	22.8	25.27
Black River ...	35.1	30.5	36.5	32.4	33.2	33.49
Whole Colony ...	34.5	28.5	27.7	24.1	25.3	27.95

The death-rate for Plaines Wilhems is the lowest death-rate of all the districts of the Colony. Here again Mauritius is exceptional in showing a low death-rate associated with a high birth-rate. In older civilised countries the reverse holds good—a high birth-rate being associated with a high death-rate and *vice versa*. This is brought out in the following table:

Country or Colony	Density of population per sq. mile	Birth-rate ‰	Death-rate ‰	Remarks
†Great Britain and Ireland	...	19.3	12.6	†Exclusive of the Irish Free State (Whitaker's Almanach 1927).
England and Wales ...	...	18.7	11.7	June quarter 1926.
Fiji ...	...	34.2	15.4	1924.
Tasmania ...	...	24.45	9.35	1925.
British Guiana ...	...	33.5	24.2	1925.
Trinidad ...	194	33.12	20.57	1925.
Seychelles ...	...	27.99	14.96	1925. Most of the tropical diseases are unknown in Seychelles.
Ceylon ...	...	36.79	25.29	1924.
Mauritius ...	553.1	39.4	25.3	1926.

The next table, with the figures for 1925 inserted for purposes of easy comparison summarises the causes of death and the rates in the usual groups†:—

Group	No. of Deaths		Rate per ‰	
	1925	1926	1925	1926
I. General Diseases ...	3,608	3,876	9.3	9.9
II. Diseases of the nervous system and of organs of the special senses	370	404	1.0	1.0
III. Diseases of the circulatory system...	150	180	.4	.5
IV. Diseases of the respiratory system...	1,383	1,432	3.5	3.6
V. Diseases of the digestive system ...	1,079	1,220	2.8	3.1
VI. Non-venereal diseases of the genito-urinary system and annexa ...	530	607	1.4	1.5
VII. The puerperal state ...	178	229	.5	.6
VIII. Diseases of the skin and of the cellular tissue ...	49	36	.1	.1
IX. Diseases of the bones and of the organs of locomotion ...	8	4	.0	.0
X. Malformations ...	7	4	.0	.0
XI. Diseases of early infancy ...	1,090	964	2.8	2.5
XII. Old age ...	219	278	.6	.7
XIII. Affections produced by external causes ...	178	130	.5	.4
XIV. Ill-defined ...	478	564	1.2	1.4
All causes ..	9,327	9,948	24.1	25.3

\* These are crude death-rates, i.e. deaths irrespective of any consideration as to whether they are indigenous to the district or imported from another district.

† The grouping of causes of death here followed is that adopted by Registrar General in his annual report, in accordance with the classification adopted by the Registrar General of England. Influenza, Whooping cough, Tuberculosis are included under General Diseases. (Group I).



The more notable causes of death were as under :—

Diseases	No. of Deaths		Rate per ‰ living	
	1925	1926	1925	1926
Malaria and malarial cachexia ...	1,634	1,842	4.2	4.6
Pneumonia and Broncho-pneumonia ...	85	850	2.0	2.1
Influenza ...	347	389	.8	.9
Diseases of early infancy ...	1,090	964	2.8	2.4
Pulmonary tuberculosis ...	817	768	2.1	1.9
Diarrhoea and Enteritis ...	661	792	1.7	2.0
Bronchitis ...	494	472	1.2	1.1
Old age ...	219	278	.5	.7
Dysentery ...	298	372	.7	.9
Albuminuria, Bright's disease, Nephritis and Uraemia ...	494	571	1.2	1.4
Debility (over 1 year and under 70) ...	281	358	0.7	.9
Plague ...	65	41	.1	.1
Heart diseases (organic) ...	106	121	.2	.3
The puerperal state ...	178	229	.4	.5

### INFANTILE MORTALITY

27. The infantile mortality rate is the number of deaths of infants under one year of age occurring in any year for every thousand live births registered during the same year.

The rate for 1926 was 120.6 o/oo as compared with 119.7 o/oo for 1925.

The deaths under 5 years were distributed as follows :—

					Males	Females	Total
<i>Under 1 year</i> ...	...	...	...	...	1,034	839	1,873
1 year and under 2 years ...	...	...	...	...	304	303	607
2 years „ 3 „ ...	...	...	...	...	205	223	428
3 years „ 4 „ ...	...	...	...	...	110	146	256
4 years „ 5 „ ...	...	...	...	...	75	80	155
Total under 5 years ...					1,728	1,591	3,319

The following table shows the grouping of those deaths according to the causes inscribed on the death certificates.

Causes of death					Under 1 year	1 to under 5 years
General diseases ...	...	...	...	...	346	636
Diseases of the nervous system and organs of the special senses ...	...	...	...	...	47	68
Diseases of the circulatory system ...	...	...	...	...	...	2
„ „ respiratory system ...	...	...	...	...	214	226
„ „ digestive system ...	...	...	...	...	256	316
Non-venereal diseases of the genito-urinary system and annexa ...	...	...	...	...	...	15
Diseases of the skin and cellular tissue ...	...	...	...	...	...	3
„ „ bones and organs of locomotion ...	...	...	...	...	1	1
Malformations ...	...	...	...	...	4	...
Diseases of early infancy ...	...	...	...	...	964	...
Affections produced by external causes ...	...	...	...	...	1	35
Ill-defined causes... ..	...	...	...	...	40	144
All causes ...					1,873	1,446

The distribution of the deaths attributed to the diseases of early infancy and a comparison of these figures with those of 1925 is shown below :—

Designation of diseases and accidents	1925	1926
Infantile atrophy, debility and marasmus ...	1,036	925
Premature birth ...	28	22
Icterus neonatorum ...	2	2
Atelectasis ...	14	9
Injuries at birth ...	8	5
Lack of care ...	1	...
Diseases of umbilicus &c. ...	1	1
	1,090	964

According to the figures given above Mauritius occupies an intermediate position on the scale when compared with the rates for other countries shewn in the following table, and a favourable position when compared with countries within the tropics or in the sub-tropical

zones. It must be remembered however, that the bulk of the population of Mauritius are living under rural, and not urban conditions, so that the figures given in the following table are not strictly comparable. The Infantile Mortality rate is higher in cities than in rural areas and for this reason it would be imprudent to draw any conclusions from a comparison between the rate for Mauritius and, for instance, that given for the 33 principal towns of Ceylon. However, even although the position in the Colony is by no means as bad as it has been, or is elsewhere, the present day figures are still much too high, even for the tropics, and they point to the necessity of greater care being exercised in the conduct of labour and in the nurture of the newly born than has been given to these subjects in the past. The steps that have been taken to effect this will be recorded in the section of this report dealing with Maternity and Child Welfare.

Country, Town or Colony			Year *	Infantile mortality rate	Remarks
England and Wales ...	...	...	1925	75	
do. ...	...	...	1925	64	Rural districts.
Tasmania ...	...	...	1925	55	
Ceylon ...	...	...	1924	235	Rate for the 33 principal towns.
Jamaica ...	...	...	1921	270	
British Guiana ...	...	...	1925	155	
Trinidad ...	...	...	1925	134.47	
Mauritius ...	...	...	1926	120.6	

### STILL-BIRTHS

28. Still-birth is defined by the Registrar General as "A child born dead at or after the seventh month of pregnancy."

The number of still-births registered during 1926 is as under—showing a decrease.

Districts		MALES		FEMALES		TOTAL	
		1925	1926	1925	1926	1925	1926
Port Louis ...	...	94	85	63	69	157	154
Pamplemonsses ...	...	67	67	75	43	142	110
Rivière du Rempart ...	...	69	61	42	54	111	115
Flacq ...	...	126	105	102	70	228	175
Grand Port ...	...	130	116	82	92	212	208
Savanne ...	...	71	71	77	69	148	140
Plaines Wilhems ...	...	152	138	107	94	259	232
Moka ...	...	73	80	60	60	133	140
Black River ...	...	26	21	23	20	49	41
Total ...	...	808	744	631	571	1,439	1,315

It is equivalent to 84.7 ‰ of live births, for the same period, as compared with 87.0 ‰ for 1925.

The still-births are distributed as follows for the two great classes of the population.

			Males	Females	Total
General population ...	...	...	168	120	288
Indian population...	...	...	576	451	1,027
Total ...	...	...	744	571	1,315

## III.—Hygiene and Sanitation

### PREVENTIVE MEASURES

#### EPIDEMIC DISEASES

##### PLAGUE

29. The most important feature of the plague situation in the Colony during 1926 was the beginning made with the construction of the rat-proof granary designed to replace the existing grain stores in the Port. It has been proved that these stores have been the chief foci of plague infection in the town; foci where the disease smoulders from year to year, breaking out in epidemic form whenever the climatic conditions in the district become favourable. The withdrawal of the Colony's grain supply from these insanitary stores and its storage under hygienic conditions cannot fail to exert a profoundly ameliorating effect upon the plague situation in the Island while at the same time the granary will act as a barrier to the introduction of the disease from overseas.

\* The latest figures available locally are here given.



Concurrently with this work general measures have been applied. A good deal of unobtrusive anti-plague work was carried out in Port Louis, where 658 dwelling houses and shops were repaired and made as rat-proof as circumstances would permit. Rat-proofing was not confined to areas in which chronic plague infection was known to be present, but was carried out all over the town in anticipation of the dispersal of the rodents which is expected to take place on the suppression of the private grain stores referred to above. The rat-proofing measures current in the Colony at the present time are the abolition of rubble walls; filling in of shallow basement cellars; repair of basements, and the liberal use of cement concrete for floors and in double walls. Rat-proofing of new buildings is now insisted upon by the Department. There is generally little objection to this, as most persons in the Colony realise that rat-proofing has proved to be an effective measure for the prevention or eradication of plague. 2,317 inoculations with anti-plague vaccine were carried out; 1,947 in Port Louis and 370 in Plaines Wilhems.

The trapping and poisoning of rats is carried out primarily to obtain the material which will keep the Department *au courant* with the progress of the infection. The work has been confined mainly to Port Louis and Plaines Wilhems as these are the districts most frequently infected. A certain amount of attention was devoted to the District of Pamplémousses as a result of the occurrence of 2 cases there. The figures are as follows :—

District	Rats caught and destroyed	Examined	Infected	Infection rate	Pregnant	Young	Fecundity Index
Port Louis	... 65,394	43,560	44	0.10%	144	849	5.2
Plaines Wilhems	... 22,970	14,901	2	0.01%	...	...	...
Pamplémousses	... 1,193	1,168	...	...	...	...	...

Periodical fumigation of gunny-bag stores was carried out during the year. The fumigation is made by burning sulphur in a portable "Clayton" machine.

28 cats were examined during the year and 4 were found to be plague-infected.

#### ANKYLOSTOMIASIS

30. The activities of the Hookworm Campaign have been dealt with on page 14. The Soil Sanitation Campaign has been practically completed. During the past four years the Sanitary Staff have caused the construction of 37, 391 pit and 7,416 pail latrines.

#### SCHISTOSOMIASIS

31. This is not a notifiable disease, and no special enquiry has hitherto been undertaken to ascertain the exact distribution of the infection. For several years past, however, examinations of molluscs suspected to be parasitised with the Schistosome have been carried out but so far without discovering which species acts as the local intermediate host.

#### ENTERIC FEVER

32. Epidemiological inquiry is made with reference to every case of infectious disease notified to the Sanitary Authority. In the case of Enteric fever the enquiry is made with a view to attempting to trace the source of the infection. It must be admitted that the investigations of the Sanitary Authority have hitherto thrown little light on the subject of typhoid fever in Mauritius. The possible sources of infection are so numerous and varied that it is difficult to employ as yet any process of elimination in the enquiry. The water supplies are by no means above suspicion, the general milk supply is no worse, or no better, than it is elsewhere in the tropics. Soil pollution and pollution of streams still goes on, but so far as I am aware, no evidence has been collected definitely tracing an outbreak to any of these sources. In presence of such a state of affairs, the search for carriers appears to be an ultra-refinement of epidemiological technique.

Visits are made by the Sanitary staff to premises in which cases of the disease are notified to exist, and the customary methods of surveillance and disinfection are carried out, in most cases with the kind co-operation of the practitioner in charge of the case.

### GENERAL MEASURES OF SANITATION

#### *Night Soil and Conservancy*

33. In Port Louis the work on the sewerage was continued during the year. The work was mainly confined to the laying of main sewers, so that little difference was made in the number of premises served by the Government night soil service. 159 water closets were, however, connected with the sewers.

In rural areas the pit latrine system, where practicable, is the system of choice. Where pits cannot be constructed bucket services are performed either by Government agency as at Port Louis and Curepipe; by the Township Boards as in Quatre Bornes, Rose Hill and Beau Bassin; or by contractors working under Government supervision. The contractors have not in all cases given satisfactory work and two contracts had to be cancelled.

The repeal of the Sanitary Rate Ordinance by Ordinance No. 7 of 1926 in July transferred the responsibility of the oiling of pit latrines from the Sanitary branch of the Department to the occupier of the premises in which the latrine is installed. The oiling of the pits had been found to be necessary to prevent the breeding of bluebottle flies and the



Sanitary Rate Ordinance had provided the means for the systematic oiling and inspection of these latrines. It is to be feared that the occupiers of premises generally are neglecting this important feature in the maintenance of these latrines and so far the problem of the satisfactory maintenance of pit latrines still awaits solution. Still, with all its defects, the pit latrine system is an enormous improvement over the old engrais system, whereby every year there was a wholesale pollution of the country side with manure which, more often than not, contained a large proportion of fresh human excrement.

*Collection and Disposal of Refuse.*

34. In Port Louis this work is carried out by the Government staff working under the direction of the Medical Officer of Health. The adoption of the Rose Hill system of trailers which could be man-handled from door to door until they were filled, when they were attached to motor lorries and driven to the place of disposal, was a great improvement on the old method of employing bullock transport, as regards speed, cost, and service.

Until the end of June the scavenging of Curepipe was undertaken by the Colonial Government through the Medical Officer of Health. In July the Board, through a contractor continued the service. In the townships the local boards are responsible for the scavenging, which has been satisfactory upon the whole. Phoenix, Vacoas and the rural districts have been undertaken by the Colonial Government working through contractors.

*Water Supplies*

35. In Port Louis part of Grand River supply is now passed through a scrubbing filter, while part is still passed into the mains without treatment of any sort. Owing to a number of circumstances, the chief being the wanton waste of water that still goes on in the town, chlorination could not be effected, but it is hoped that the measures now being taken by the Water Authority for the town will ultimately result in better regulation of the supply, stoppage of waste ; and purification of the water before it is issued to consumers.

The Public Works Department were able to extend the supply of Mare-aux-Vacoas water to Camp Fouquereaux, Petit Verger and Pointe aux Sables. Extensions of this supply were also made in Curepipe.

Improvements have been made to certain supplies in the Northern Districts as well as in the Districts of Moka, Savanne, Black River and Grand Port. These improvements have mostly taken the form of substituting a piped for an open or well supply.

*Anti-malarial Works*

36. The Public Works Department were engaged in filling in marshes at Cannoniers Point, Grande Baie Village, Cap Malheureux as well as in the Districts of Flacq and Savanne.

SCHOOL HYGIENE

37. Work in connection with school hygiene is at present limited to a medical inspection of school children twice yearly. The inspection is made by the Medical Officer of Health or Sanitary Warden of the District except in Port Louis where it is undertaken by the Port Health Officer as one of the additional duties attached to the post.

In the rural areas attention is chiefly given to spleen examinations, but in Port Louis a more elaborate examination is made. Some figures taken from Dr. Keisler's report on the Port Louis schools may be quoted as showing the minor ills to which the scholar's flesh is heir.

1926			
		1st January—30th June	1st July—31st December
		%	%
Pediculosis	...	3.05	2.4
Scabies	...	0.1	0.1
Skin affections...	...	1.05	0.9
Defective eyesight	...	1.2	1.5
Ear trouble	...	2.07	3.7
Tonsils and adenoids	...	3.8	3.3
Bad teeth	...	11.8	11.1

Of the major ills the following were clinically diagnosed :

		%	
Enlarged spleen	...	4.10	2.8
Anaemia	...	11.6	6.08
Schistosomiasis	...	0.8	0.1
Worm Infection	...	24.7	15.2

The total number of children examined in connection with the abovementioned figures was 2,749 for the first half-year, and 2,596 for the second.



Most of the schools in Mauritius are private residences which have been taken over for use as schools. In most cases lighting is inadequate, benches are unsuitable and overcrowding is the general rule. Were it not for the fact that the climate permits many of the classes being held in the open air and that the common epidemic diseases of temperate climates are not a factor of much importance in Mauritius, education would suffer greatly through faulty school hygiene. Fortunately, on account of factors which cannot be influenced by man, Mauritius enjoys a happy immunity from diseases such as measles, mumps, scarlet fever, typhus and diphtheria which are such bugbears to the school hygienist in less fortunately situated places.

Free quinine distribution is made at the schools by the school teachers, who are paid a small bonus for the work. As evidence of the value of this measure definite figures are not available, except those for the splenic rates of the children, but according to these the distribution appear to do good.

### C.—TRAINING OF SANITARY PERSONNEL

38. In the absence of the Medical Officer of Health, Port Louis, the course of lectures to the Sanitary Inspectors and Guards was delivered by the Chief Sanitary Inspector. The syllabus is based on that of the Royal Sanitary Institute. In addition to the formal course of lectures, candidates for the examination are given demonstrations; visits are made to places of sanitary interest in the Colony and personal instruction is given in the methods of routine inspections.

On account of the difficulty experienced in making arrangements for all of the Sanitary Staff to journey to Port Louis for the formal lecture course, the District Medical Officers of Health and Sanitary Wardens voluntarily gave supplementary instruction to their own subordinates.

In November an examination was held under the auspices of the Royal Sanitary Institute and out of the 12 candidates who appeared, 4 were successful in gaining the Sanitary Inspector's Certificate of Competency awarded by the Institute.

The present policy regarding the instruction of the Sanitary Staff aims at making Port Louis the training ground for newly engaged personnel. These recruits will be trained in Port Louis until they are ready to appear at the examination for the certificate of competency. A reasonable time will be given them to qualify for this certificate. If they are successful in obtaining it they will then become eligible for appointment in the permanent service, and will become drafted into it according to their suitability in other respects.

On account of the reorganisation of the Sanitary Staff it has not been possible to carry the abovementioned policy into effect as yet, but it is hoped that as vacancies occur, the gradual adoption of the scheme may be effected.

### IV.—Port Health work and Administration

39. The following table summarises the work done by the Port Sanitary Authority.

VESSELS ARRIVING		CREW EXAMINED		PASSENGERS EXAMINED	
Sailing craft	Steamers	Sailing craft	Steamers	Sailing craft	Steamers
22	190	297	15,938	325	3,364
Vessels given pratique on arrival	Vessels given pratique after disinfection	Vessels refusing pratique		Vessels claytonised at request of owners on account of the presence of plague in the Colony	
160	37	15			23

The S.S. "Ville d'Oran" called at Port Louis for assistance on 4th September 1926 after having landed 3 cases of plague at Reunion. Two more cases of plague were detected in the course of the medical inspection on the day of her arrival. The patients and 45 members of the crew were landed and placed under observation at Flat Island Quarantine Station. One more case was detected at Flat Island on the day after the patients and crew had been landed. The vessel was fumigated with Sulphur dioxide by means of the Clayton apparatus. The quarantine was raised on 15.9.26.

Four days later (8th September) a case of plague was discovered during the medical inspection of the crew of the S.S. "Ville de Paris." A second case was discovered on the 9th and a third one on the day after the landing of the passengers at Flat Island. The seven passengers and the patients were landed at the Quarantine Station, while the vessel and cargo were fumigated by means of the Clayton Apparatus. The quarantine was raised on 16th September 1926.

### V.—Maternity and Child Welfare

40. The Child Welfare Guild came into being as a result of the formation of a ladies' committee on October 26th 1925. This Committee worked under the Presidency of Lady Read.

The First Maternity and Child Welfare Centre was opened at Rose Hill on March 5th 1926.



During 1926 the Centre was conducted by a staff consisting of an honorary physician (Dr. Couacaud), a Health Visitor who resides at the Centre, and a certificated midwife.

The work has consisted of :—

- (1) District visiting.
- (2) Mothers' and babies' post-natal clinic for children under 2 years of age. At this clinic consultations are given ; pasteurised "humanised" milk is distributed to those who require it and simple medicines are dispensed.
- (3) Ante-natal clinic.

To the end of the year the books of the Centre registered :

Confinements attended	...	...	...	...	73
Children (under 2 years) on the Register for weighing and supervision	..				441

#### *Deaths.*

- (1) Babies attended from birth 2 (Enteritis 1—at birth 1).
- (2) Babies born at home and subsequently visited by a member of the clinic : 10.
  - 1 from Tuberculosis
  - 3 „ enteritis
  - 2 „ syphilis
  - 1 „ malaria
  - 1 „ general debility
  - 1 „ diarrhoea
  - 1 „ infantile scurvy and sepsis of cord.

The Guild is supported by voluntary contributions ; a subsidy of Rs. 10,000 from Government, and contributions of drugs from Government.

#### *The Midwives Board.*

41. Ordinance No. 26 of 1926 "To secure the training of midwives in the Colony and to regulate their practice" was enacted in December 1926. The Ordinance provides for the establishment of a Midwives Board which will deal with all matters concerning the training and practice of midwives. Under the Ordinance, all women, other than registered medical practitioners, practising midwifery are required to be registered as midwives or labour attendants as the case may be. It has been found to be necessary to tolerate the practice of "unqualified" midwives and to give them a status by designating them "labour attendants" because there is not yet a sufficient number of properly trained and qualified midwives for the needs of the population. The policy of the Board is to aim at the gradual elimination of unqualified midwives and their replacement by midwives who, having had adequate training in obstetrics, have been examined by the examiners appointed by the Board and found to be competent to practice the art.

#### *Training of Midwives.*

42. Ten midwives having successfully passed an examination held by the Department were authorised to practice midwifery.

#### *Crèche.*

43. The crèche at the Bon Secours Convent is the only establishment in the Colony specially dedicated to the care of infants and young children. This is not really a crèche in the strict sense of the word, it has more the character of a foundling's home as the children are kept there in some cases for long periods of time. During the year 22 children were admitted, 11 discharged, and 12 died.

#### *Baby Show.*

44. The Annual Baby Show is becoming more and more appreciated in Port Louis every year. It is conducted under the general direction of the Poor Law Commissioner. During the year the show was well attended ; 163 babies were brought for competition and 150 of these were accepted. Every child exhibited was given a prize ; while six first and six second prizes were awarded to successful competitors. In addition to these, the paternal instincts of the management were stimulated by the appearance of triplets, with the resultant award of a special prize of Rs. 75 to the proud and happy mother.



VI.—Hospitals.

45. The table hereunder summarises the work of the hospitals during 1926. The corresponding figures in respect of the year 1925 are also shown for easy comparison.

REPORT ON HOSPITALS FOR THE YEAR 1926.

Hospitals	Patients remaining on 31.12.25			New admissions			Deaths			Patients remaining on 31.12.26			No. of beds		No. of patients on any date during 1926		Medical cases		Surgical cases		No. of operations		Particular diseases causing largest No. of admissions		Particular diseases causing largest No. of deaths		Outdoor cases
	P*	F†	Total	P*	F†	Total	P*	F†	Total	P*	F†	Total	P*	F†	Total	Maxi- mum	Mini- mum										
Civil Hospital	20	117	137	6,659	653	7,312	30	336	366	14	195	209	350	351	136	4,933	2,519	933	Influenza, Malaria, Bronchitis, Nephritis, Enteritis, Anaemia, Tuberculosis	Tuberculosis, Malaria, Pneumonia, Bronchitis, Enteritis, Influenza, Debility and Nephritis	1,284						
Port Louis Prison	...	4	4	...	138	138	...	6	6	...	3	3	16	10	1	109	33	6	Malaria, Influenza, Tuberculosis, Bronchitis, Dysentery, Asthma	Pneumonia, Asthma, Malaria	1,844						
Long Mountain	...	23	23	34	1,106	1,140	1	80	81	...	35	35	60	78	23	969	159	12	Fever, Dysentery and Ankylostomiasis	Dysentery and Ankylostomiasis	4,935						
Poudre d'Or	...	28	28	11	1,829	1,840	...	59	59	...	31	32	70	92	27	1,445	395	179	Malaria	Dysentery	949						
Flacq	...	19	19	26	1,719	1,745	1	83	84	...	16	16	78	87	16	1,413	312	109	Bronchitis and Influenza	Nephritis and Influenza	434						
Mahebourg	...	3	3	63	2,690	2,753	5	123	128	...	48	50	102	108	29	2,164	620	504	Malaria and Influenza	Colitis and Nephritis	7,729						
Souillac	...	16	16	21	879	900	...	30	30	...	62	64	76	83	16	700	200	56	Malaria and Influenza	Influenza	730						
Victoria	...	5	5	213	3,909	4,122	2	182	184	...	117	118	244	192	62	2,168	1,954	669	Malaria and Digestive	Urinary and Digestive	85						
Mental	...	14	14	6	258	264	2	37	39	...	7	8	47	17	...	201	63	86	Influenza, Epilepsy, Malaria and Dysentery	Senile debility, Pneumonia, Phthisis and Dysentery	260						
Beau Bassin Prison	...	17	17	...	397	397	...	...	...	...	19	19	32	26	1	333	81	42	Malaria and Influenza	.....	1,370						
Barkly Industrial School	...	...	...	...	45	45	...	...	...	...	...	...	12	10	1	45	...	...	Malaria and Influenza	.....	28						
Moka	5	15	20	316	1,025	1,341	3	19	22	3	19	22	83	85	20	438	933	1,071	† Diseases of the Digestive System and affections of the eye	Cancer	505						
Total	33	346	379	7,349	14,648	21,997	44	955	999	24	552	576	1,170	...	...	14,908	7,269	3,667	.....	.....	20,153						
Total for 1925	44	382	426	2,039	17,119	19,810	47	796	843	33	335	368	1,162	...	...	3,300	6,523	3,334	.....	.....	19,621						

\* P. Paying.

† F. Free.

‡ Includes operations on out patients.

VII.—Meteorological Statistics.

46. The table hereunder summarises a few of the meteorological observations made at the Royal Alfred Observatory which offer interest from the public health point of view.

VALUES OF METEOROLOGICAL ELEMENTS AT THE ROYAL ALFRED OBSERVATORY, MAURITIUS, FOR THE YEAR 1926 AS COMPARED WITH THE CORRESPONDING PERIOD OF 1925.

Scale : Centigrade.

		Air Temperature					Relative Humidity					Mean Dew Point	Mean Vapour Tension mb.	Rainfall millim.
		Absolute maximum	Date	Absolute minimum	Date	Mean	Absolute maximum	Date	Absolute minimum	Date	Mean			
		°		°		°	%		%		°	°		
January	{ 1925	31.0	26	20.1	4	25.8	96	6	64	3	76.9	21.4	25.2	149.9
	{ 1926 ...	32.7	23	21.1	7	26.6	100	27	48	17	77.7	22.4	26.8	103.9
February	{ 1925	31.4	14,17	20.0	10,27	25.6	95	5	44	11	73.4	20.5	23.9	23.6
	{ 1926 ...	32.8	13	20.3	17	26.3	94	7	47	17	76.7	21.9	26.0	74.4
March	{ 1925	31.0	12	18.7	12	24.9	99	12	49	11	78.0	20.7	34.2	123.5
	{ 1926 ...	31.8	14	19.0	7,11	25.8	96	12,16	47	10	77.6	21.6	25.5	66.6
April	{ 1925	28.9	6	18.7	30	24.1	97	12	53	3	79.2	20.3	23.5	263.1
	{ 1926 ...	30.7	3	17.3	24	24.8	99	3	51	23	81.9	21.5	25.4	201.1
May	{ 1925	28.4	1	17.3	13	22.9	99	26	56	15	82.8	19.7	22.9	56.5
	{ 1926 ...	28.0	5	15.2	7	24.4	97	14	53	9	79.0	18.6	21.2	205.6
June	{ 1925	26.4	17	12.0	24	20.6	97	23	48	7	77.5	16.5	18.6	53.6
	{ 1926 ...	26.0	5	14.7	21	21.2	96	26	53	10	78.7	17.3	19.6	71.0
July	{ 1925	25.8	7, 8	14.2	14,19	20.4	94	18	50	1	75.8	16.0	18.0	60.8
	{ 1926 ...	25.6	20	14.9	24	21.0	98	19	49	23	74.0	16.2	18.2	96.2
August	{ 1925	25.0	8,18	12.3	21	19.6	96	16	42	29	71.3	14.2	16.1	29.2
	{ 1926 ...	25.7	15	15.5	23	20.8	99	17	53	30	77.0	16.6	18.7	127.0
September	{ 1925	27.6	16	16.1	26,27	21.4	97	12	45	3	71.9	16.1	18.1	16.3
	{ 1926 ...	28.8	21	14.9	3	21.7	96	19	47	27	71.6	16.3	18.4	6.9
October	{ 1925	30.6	19	15.8	31	22.4	93	26	40	31	66.8	15.9	17.9	26.6
	{ 1926 ...	30.0	28	12.2	11	22.1	95	9	43	15	70.0	16.3	18.4	20.4
November	{ 1925	29.8	28	15.0	1	23.7	96	26	47	18	73.8	18.7	21.4	144.2
	{ 1926 ...	29.4	30	17.8	2	24.0	97	21	43	6	71.6	18.5	21.1	102.2
December	{ 1925	31.1	30	20.0	3,30	25.8	97	2	48	7	75.4	21.1	24.8	123.3
	{ 1926 ...	31.0	13	18.6	8	25.1	98	15	54	18	75.9	20.5	23.9	94.9

47. The writer was absent from the Colony during the whole of the period reviewed in this report. Since his return he has been accorded the full co-operation and assistance of the Departmental Staff, and he wishes to thank these ladies and gentlemen for loyal and willing service rendered ungrudgingly to him in his efforts to maintain and improve the health of the Colony.

26th August, 1927.

J. BALFOUR KIRK,  
Acting Director.

APPENDIX I.

ANNUAL REPORT OF THE BACTERIOLOGICAL LABORATORY FOR THE YEAR 1926.

The total number of samples and articles examined at the Bacteriological Laboratory during the year 1926 was 5,077 as compared with 5,167 in 1925. The figures for the last six years are shown in the following table :—

In 1921 ...	1,776 examinations	1924 ...	4,012 examinations
1922 ...	1,850	1925 ...	5,167
1923 ...	3,014	1926 ...	5,077

No more convincing evidence could be adduced of the sustained usefulness of, and unabated public confidence in, this Institution. The work done during the period under review will be arranged under the same heads as before for convenience and to facilitate comparison with previous reports.

I.—CLINICAL

Samples coming under this head, exclusive of vaccines, numbered 3,769. Of these 475 were submitted to cultural manipulations and tested by inoculation to animals when required.



The materials examined comprised specimens of blood, sputum, pus, throat and nasal swabs, cerebro-spinal, ascitic and pleural fluids, human milk, fæces, urine, new-growths and various pathological discharges.

(1) *Blood*.—1,896 samples were received.

(a) *Malaria*: 195 smears were examined for parasites with successful findings in 20 cases as under:—

Tertian ...	...	7
Subtertian ...	...	9
Quartan ...	...	4

(b) *Filariasis*: 7 specimens showed embryos of *Filaria Bancrofti*.

(c) *Typhoid and Paratyphoid Fevers*: These diseases accounted for 227 samples. 170 of these were tested for agglutinins by Widal's method with positive results for typhoid fever in 68 cases. In 7 cases paratyphoid was suspected and the blood tested against laboratory cultures A and B, with negative results, thus confirming the view already expressed from this Institution that paratyphoid fevers are rare in this Colony. In one case Dreyer's agglutination test was successfully applied. 66 samples were cultured on bilesalt media from 10 of which bac. typhosus (Eberth) was isolated; from another, bacillus coli communior was recovered in pure culture.

(d) *Syphilis*: 1,297 Wassermann's tests were done against 960 in 1925 and 465 in 1924. Results positive in 331 and doubtful in only 24.

(e) *Tuberculosis*: Nine samples of blood were tested for that disease by Besredka's complement fixation method. Positive findings in three. One cannot help being impressed with the reliability of this test in cases of incipient tuberculosis.

(f) *Blood counts*: 118 differential leucocyte counts were made and two leucocyte numerations.

(g) *Urea and Glucose values*: These were obtained in 95 and 35 cases respectively, the latter being mostly grave diabetic conditions treated with insulin.

(h) *Bacteriological examination*: 66 samples were cultured, with success in 18 cases. 11 of these have already been dealt with under para. (c) supra; of the remaining 7, staphylococci were found in 4 and streptococci in 3.

(2) *Sputum*.—Specimens examined, all for pulmonary tuberculosis: 373, as compared with 235 in 1925. Koch's tubercle bacillus was found in 77, with or without the help of concentration methods.

(3) *Throat and nasal swabs* were received on 211 occasions. The examination was made either for diagnostic purposes or in the search for diphtheria carriers among convalescent patients or contacts. It is now the rule to resort to culture whenever a direct microscopical examination is negative or in the least doubtful. The Klebs-Loeffler organism was found on 34 swabs while 9 showed Vincent's fusiform bacillus, 4 Hoffman's and 3 Hansen's bacillus.

(4) *Pus*.—Number of specimens 111, some in the form of smears of urethral or vaginal discharges. Gonococci were found in 7 of these. In others the ordinary pyogenic organisms were present but also a peculiar oval diphtheroid bacillus not unfrequently connected with post-influenzal suppurations. In 47 cases the pus collected with aseptic precautions was cultured yielding:

Staphylococci from ...	...	25 samples
Streptococci from ...	...	9 "
Bac. coli communior from ...	...	1 "
Bac. pyocyaneus from ...	...	1 "
Diphtheroid bacillus from ..	5 "	
Bac. alkaligenes from ...	...	1 "

On the remaining 8 occasions the pus proved sterile.

(5) *Cerebro-spinal fluid*.—84 samples. They were dealt with as follows:—

Simple microscopical examination ...	21 samples
Leucocyte count ..	18 "
Differential count ...	1 "
Nonne-Appelt Test ...	7 "
Quantitative albumen ...	12 "
" chlorides ...	3 "
Wassermann's Reaction...	11 "

The remaining 11 samples were cultured. They yielded:—

Bacillus influenzae (Pfeiffer) in ...	1 case
" alkaligenes in ...	1 "
Meningococci in ...	1 "
Pneumococci in ...	1 "
No micro-organisms in ...	11 "

(6) *Ascitic Fluid*.—Six specimens were examined. Three for micro-organisms but they proved sterile. With two of the others a simple leucocyte numeration and a differential count were made respectively while a Wassermann was done with the sixth.

(7) *Pleural Fluid*.—One specimen was received and cultured with negative results.

(8) *Prostatic secretion*.—A sample was cultured and showed staphylococci.



(9) *Uterine ad vaginal discharges*.—Five specimens were culturally examined. They gave respectively :—

Streptococci	...	...	2
Diphtheroid bacilli	...	...	1
Gram negative bacilli (unclassified)			2

(10) *Eye swabs*.—Three were received coming from cases of conjunctivitis. One showed no micro-organisms of any kind ; on the other two staphylococci were found.

(11) *Faeces*.—Total number of specimens 820, amongst which 124 showed amoebae of various kinds, specially *Ent. histolytica* in 46 and *A. Coli* in 72. The following intestinal parasites or their eggs were also found in the course of these examinations :—

Trichuris trichiura in...	...	574 specimens
Ascaris in	...	234 „
Ankylostoma in	...	139 „
Blastocystis in	...	90 „
Lambliia in	...	83 „
Trichomonas in	...	41 „
Strongyloides in	...	21 „
Oxyuris in	...	3 „
Tetramitus Mesnili in	...	3 „
Isospora hominis in	...	2 „
× Balantidium coli in	...	1 „

Seventeen specimens were cultured. The predominant organisms isolated were :—

Bacillus typhosus from	5 specimens
„ coli communior was	
isolated from	2 „
„ pyocyaneus from	1 „
„ paracoli from	1 „
„ paratyphoid A. from	1 „
„ alkaligenes from	1 „
Streptococci from	1 „

Dreyer's agglutination test was applied successfully in one case.

(12) *Urine*.—494 analyses were made. Most of these consisted in routine clinical procedures, chemical and microscopical but in 93 cases the centrifuged sediments of samples drawn with aseptic precautions were cultured with the findings shown hereunder :

Bacillus coli communior from	18 specimens
„ communis from	15 „
Staphylococci from	14 „
Bacillus pyocyaneus from	9 „
„ paratyphoid A. from	8 „
Streptococci from	4 „
Bacillus paracoli from	2 „
„ pyogenes foetidus from	2 „
„ lactis acidii from	1 „
Sterile	23 „

Microscopical examination of the sediments also showed :

Hyaline casts in	24 cases
Granular casts in	12 „
Eggs of schistosomum haematobium in	5 „
Trichomonas in	5 „

(13) *Organs and Pathological Formations*.—19 specimens were cut and examined. They consisted of :—

Chronic endometritis	...	...	1
Squamous epithelioma	...	...	3
Cystic myxoma	...	...	1
Simple fibroma	...	...	1
Scirrhus	...	...	1
Periosteal sarcoma	...	...	1
Hypertrophied cervix uteri	...	...	1
Bilharzial growth	...	...	1
Foetal lung	...	...	3
Renal calculi	...	...	1
Vaginal curettings	...	...	5

The vaginal curettings were sent in because bilharziasis was suspected. As a matter of fact eggs of schistosomum haematobium were found in one of these cases.

(14) *Hairs*.—Specimens were received from a case of suspected mycosis. Examination negative.



(15) *Spleen and gland smears* were examined from seven suspicious cases of plague. In six, plague bacilli were found. Three strains of the organism were isolated.

(16) *Human milk*.—4 samples were chemically analysed to determine their nutritive value. Nothing abnormal was discovered.

(17) *Tumour Juice*.—Examined for treponema in one case with negative results.

## II.—VACCINE

(1) *Prophylactic vaccines*.—Anti-typhoid prophylactic vaccine was prepared throughout the year and supplied free to applicants. The preparation of T. A. B. vaccine was discontinued as the demand had completely ceased.

On the other hand that for Calmette's B.C.G. vaccine against tuberculosis has been steadily increasing. The number of infants thus protected was 792 in 1926 bringing the total number from the beginning up to December 1926 to 1,358 and as far as could be ascertained no case of tuberculosis had been discovered amongst them although many of these children remained exposed to infection.

(2) *Therapeutic vaccines*.—The growing importance of this branch of the Laboratory work is evidenced by the fact that the number of auto-vaccines prepared in 1926 rose to 200 *close on 100* as compared with 66 in 1915. They were made with micro-organisms isolated in the Laboratory from blood, urine, pus, faeces, pharyngeal exudate, cerebrospinal and prostatic fluids, as follows:—

From blood with bacillus typhosus	...	8
"    "    streptococci	... ..	1
"    "    bacillus coli communior	...	1
From urine with bacillus coli communior	...	17
"    "    "    "    communis	...	13
"    "    staphylococci	... ..	8
"    "    bacillus pyocyaneus	...	7
"    "    "    paratyphosus A	...	7
"    "    streptococci	... ..	3
"    "    bacillus paracoli	...	1
"    "    eberthella (Passet)	...	1
"    "    bacillus lactis acidi	...	1
"    "    "    pyocyaneus and		
coli communior	... ..	1
From pus with staphylococci	... ..	17
"    "    streptococci	... ..	4
"    "    bacillus pyocyaneus	...	1
From faeces with bacillus typhosus	...	2
"    "    "    pyogenes foetidus		1
From pharyngeal exudate with streptococci		1
"    cerebrospinal fluid with bacillus		
influenzæ (Pfeiffer)	... ..	1
From prostatic fluid with staphylococci	...	1

An outstanding feature of these preparations is the important part played in many septicæmic and urinary conditions by bacilli of the coli group specially the communior (saccharose +) variety.

Filtered vaccines (Besredka) were also prepared on a pretty large scale from stock cultures of staphylococci and streptococci for the treatment of puerperal septicæmia specially. The method is being extended and auto-filtrates were prepared from bac. coli, pyogenic organisms and the diphtheroid bacillus already referred to, for local applications, with encouraging results. Of the stock filtrates 13,000 cc. streptococcal and 5,000 cc. staphylococcal vaccines were supplied in the course of the year.

## III.—PUBLIC HEALTH

A total of 836 samples of foods and drugs were examined, a decrease of 448 as compared with the figures for 1925. The decline has taken place in connection with the milk examinations.

The following substances were analysed:—

	No. of Samples	No. of cases	From whom received
Milk	... 783	... 783	... Sanitary Authorities, Law Courts, Govt. Institutions.
Gandia	... 22	... 7	... Police and Revenue, Officers.
Wine	... 14	... 5	... Sanitary Authorities, Liquor Commission Revenue Officers.
"Orangia" wine	... 4	... 1	... Police.
Bread	... 4	... 2	... Sanitary Authorities.
"Cider"	... 7	... 5	... Medical Director, Revenue Officers.
Butter	... 1	... 1	... Prisons.
Salt Fish	... 1	... 1	... Prisons.



A large proportion of the milk samples showed such a close approximation to the legal standards in their chemical composition as to suggest a successful adjustment of the constants to avoid prosecution.

Analysis of wines taken both at the Customs and at the dealers' showed that in certain cases benzoic acid had been added as a preservative probably in the form of benzoate of soda, to improve the keeping qualities of the beverage.

#### IV.—MEDICO-LEGAL

The articles of evidence, organs, materials etc. referred for examination by the Judicial Authorities at the request of the Police and other Public Departments amounted to 272 against 240 in 1925.

The figures for the last six years stand as under :—

1921	...	...	...	148 articles
1922	...	...	...	179 „
1923	..	...	...	180 „
1924	...	..	...	125 „
1925	...	...	...	240 „
1926	...	...	...	272 „

The examinations were made in connection with the following offences :—

Rape	...	...	101 articles in	17 cases
Murder	...	...	101 „	12 „
Sodomy	..	...	36 „	5 „
Poisoning	...	...	6 „	3 „
Illicit distillation	...	...	13 „	8 „
Bestiality	...	..	8 „	1 „
Larceny with violence	...	...	1 „	1 „
Attempt on chastity	...	...	4 „	1 „
Homicide	...	...	1 „	1 „
Motor Spirit (deceiving purchaser)...		...	1 „	1 „

Cases of rape and murder again predominated. With regard to the latter it is worth mentioning that the precipitin test was applied in several cases during the year to determine the human or other origin of blood stains on articles of evidence and usually with success but the experience acquired shows that in dealing with steel weapons exposed to rust the test must be applied at the earliest possible opportunity.

#### V.—RESEARCH

The staff engaged on researches on the following :—

1. The precipitin test as applied to human blood and the blood of the Mauritius wild monkey, *macacus cynomolgus*. Monkey blood was found to give a positive reaction in dilutions not above 1 : 100 with antihuman rabbit serum which gave a precipitate with human blood in 1 : 20,000 dilutions.

2. Adaptation of Calmette's B.C.G. vaccine for the protection of local breeds of cattle against bovine tuberculosis.

3. A study of the refractometric readings of some of the vegetable oils on the market for purposes of differentiation.

4. A study of the most convenient methods for the detection of preservatives in wines.

5. The preparation of auto-filtrates by Besredka's method for therapeutic purposes with cocci, diphtheroid and coli organisms.

6. Further search for the intermediate host, or hosts, of *schistosomum hæmatobium* in Mauritius.

L. G. BARBEAU,  
Superintendent, Bacteriological Laboratory.

Bacteriological Laboratory,  
May 18th, 1927.



## APPENDIX II

## REPORT ON THE MENTAL HOSPITAL FOR THE YEAR 1926

The total number of certified insane persons in the Colony on 31.12.26 was 719 compared with 686 and 700 for 1924 and 1925, respectively.

The following table shows the distribution of the 719 certified insane persons :

	European			General			Indian			Chinese			Total
	M	F	T	M	F	T	M	F	T	M	F	T	
At Mental Hospital ...	2	...	2	165	175	340	150	92	242	14	...	14	598
On probation leave ...	...	...	...	28	29	57	36	20	56	1	2	3	116
On leave under G.N. 239/24 ...	...	...	...	3	...	3	2	...	2	...	...	...	5
Total ...	2	...	2	196	204	400	188	112	300	15	2	17	719

(i) The ratio of total insane to total population was 18.05 per 10,000 compared with 17.77 for 1925.

(ii) The insane rate for the General population was 35.71 per 10,000, that for Indians and Chinese being 10.80 and 19.98 respectively. The insane rate for the General population is, therefore, more than three times that of the Indian.

(iii) The male insane rate for all classes was 19.56 per 10,000 and the female rate 16.44.

## HOSPITAL POPULATION

2. Of the 600 inmates in hospital on 31.12.26, 332 were males and 268 were females. Two were under interim detention awaiting examination by the Commissioners of Lunacy, so that the correct number of certified insane patients in hospital on 31.12.26 was 598. Included in this number were 13 male and 11 female paying patients.

During the year there was a daily average in hospital of 335.60 males and 247.32 females.

## CRIMINAL MENTAL PATIENTS

	M	F	T
3. In hospital on 31.12.25 ...	14	...	14
Admitted during 1926 ..	2	...	2
Discharged or dealt with under Art. 60 Ord. 23 of 1906... 4	...	...	4
Died during 1926 ...	...	...	...
Remaining on 31.12.26 ...	12	...	12

Of the two criminal mental patients admitted during the year one, an untried prisoner and an epileptic, came from Rivière du Rempart charged with larceny; the other, also an epileptic, committed for wounds and blows, came from the New Central Prisons, Beau Bassin.

4. The following table shows the duration in hospital to 31.12.26 of the 598 certified insane patients :

	M	F	T
1 year or less ...	68	45	113
Between 1 and 2 years ...	33	19	52
"    2    "    3    "    ...	28	23	51
"    3    "    4    "    ...	25	9	34
"    4    "    5    "    ...	13	10	23
"    5    "    6    "    ...	15	10	25
"    6    "    7    "    ..	9	13	22
"    7    "    8    "    ...	5	12	17
"    8    "    9    "    ...	4	8	12
"    9    "    10   "    ...	6	12	18
"    10   "    15   "    ...	43	45	88
"    15   "    20   "    ...	26	24	50
"    20   "    25   "    ...	26	18	44
"    25   "    30   "    ...	8	10	18
Over 30 years ...	22	9	31
Total ...	331	267	598

It will be seen from the above table that more than half of the inmates have been in hospital 5 years or more, the prognosis in the vast majority of these cases being bad.

## ADMISSIONS

5. The total number of admissions into the Mental Hospital during 1926 was 254 compared with 220 in 1925.

	M	F	T
1st admissions ... ..	60	44	104
2nd „ ... ..	7	7	14
3rd „ ... ..	3	0	3
Readmissions from probation ... ..	27	22	49
„ „ Barkly Branch Wards ... ..	27	30	57
„ „ leave under G.N. 239/24 ... ..	3	7	10
Admitted under interim detention and died whilst so detained ... ..	2	1	3
Admitted under interim detention and later found sane and released ... ..	6	6	12
Admitted under interim detention awaiting examination by Commissioners of Lunacy ... ..	1	1	2
Total ... ..	136	118	254

As usual, the largest number of admissions were from the districts of Plaines Wilhems and Port Louis.

6. Table showing the probable causes of insanity in the 121 cases admitted during the year for the 1st, 2nd and 3rd time :—

Causes	M	F	T
Fevers (malaria, influenza &c.)	19	8	27
Unknown causes ... ..	11	9	20
Hereditary influences ... ..	12	7	19
Alcohol ... ..	15	2	17
Epilepsy ... ..	12	8	20
Previous attacks of insanity ... ..	12	7	19
Domestic trouble and grief ... ..	4	8	12
Mental worry, anxiety and overwork ... ..	4	6	10
Old age ... ..	4	2	6
Congenital defects ... ..	...	...	..
Syphilis ... ..	4	1	5
Business and pecuniary difficulties	1	...	1
Puerperal and parturition ... ..	...	4	4
Prolonged lactation ... ..	...	1	1
Pregnancy ... ..	...	1	1
Menopause ... ..	...	...	...
Puberty ... ..	...	1	1
Fright and nervous shock ... ..	...	...	...
Opium .. ... ..	...	...	...
Gunjah ... ..	...	...	...
Dysentery ... ..	2	...	2
Arteriosclerosis ... ..	2	...	2
Privation ... ..	3	4	7
Nephritis ... ..	...	2	2
Abscesses ... ..	1	...	1

These figures represent the entire number of instances in which the general causes, either alone or in combination with others, were stated to have produced the mental disorder. The excess of the aggregate of such causes over the number of patients considered—121—is owing to the combination of causes.

As usual fevers, alcohol, heredity, epilepsy, worry, grief, anxiety, previous attacks of insanity are prominent etiological factors.

Alcoholism was more rife among the General population: thus, out of 17 patients admitted during the year, all of whom were alcoholics, no fewer than 11 were Creoles. In 1925 out of 19 alcoholics admitted 15 were Creoles.

## DISCHARGES

7. The total number of discharges during the year was 166 compared with 212 in 1925. Table showing the classification of discharges :—

	M	F	T
Alleged mental patients found sane by Commissioners of Lunacy and released ... ..	6	6	12
Patients cured and finally discharged ... ..	1	...	1
„ relieved and discharged on probation ... ..	63	52	115
„ allowed out on leave under G.N. 239/24 ... ..	7	6	13
Transferred to Barkly Wards (Chronics) ... ..	13	12	25
Total... ..	90	76	166



Since the taking over of the Barkly Wards from the Poor Law Department on 1.7.26 and their incorporation with the Mental Hospital, transfers to them have ceased to figure on the list of discharges for the year, hence the decrease under the heading "Transferred to Barkly Wards" from 101 in 1925 to 25 for the first six months of 1926. The percentage of recoveries on admissions (121 admissions plus 49 readmissions from probation) was 68.23 compared with 62.23 for 1925 and 61.68 for 1924. During the year there were 116 recoveries (115 relieved and 1 cured), compared with 89 recoveries (86 relieved and 3 cured) in 1925.

59 patients (42 males and 17 females) on probation leave were found cured and finally discharged.

DEATHS

8. During the year there were 39 deaths (20 males and 19 females) as against 20 in 1925 and 37 in 1924. Of these deaths 16 took place within one month of admission and were mainly due to the poor state of health of the patients admitted.

The death rate, calculated on the daily average in hospital, was 6.69% compared with 3.58% in 1925 and 6.66% in 1924. For the purpose of comparison it may be mentioned that the average death rate for all Mental Hospitals in England and Wales was 8.89% in 1922 and 7.7% in 1923.

9. The following table gives the number and causes of death during the year :

Causes			M	F	T
—			—	—	—
Senility	...	...	3	5	8
Phthisis	...	...	3	3	6
Pneumonia	...	...	4	2	6
Epilepsy	...	...	1	2	3
Cerebral hæmorrhage	...	...	1	1	2
Cerebral thrombosis	...	...	0	1	1
Carcinoma of uterus	...	...	0	1	1
Acute mania and cardiac failure	...	...	1	0	1
Dysentery	...	...	4	2	6
General paralysis of the insane	...	...	1	0	1
Bronchitis	...	...	1	0	1
Cirrhosis of liver	...	...	0	1	1
Abscesses and toxæmia	...	...	0	1	1
Fractured skull	...	...	1	0	1
Total			20	19	39

From the above table it will be seen that most of the deaths were due to senility, phthisis, pneumonia, dysentery and epilepsy. 12 postmortem examinations were made, a percentage of 30 7 of total deaths.

PREVALENCE OF SICKNESS

10. The following table gives the number of cases treated in both Infirmaries and the daily average of sick for the years 1925 and 1926 :—

	1925			1926		
	M.	F.	T.	M.	F.	T.
No. of cases treated in Infirmaries ...	210	138	348	161	117	278
Daily average of sick in Infirmaries ...	5.91	3.95	9.87	3.66	2.98	6.64
Sick rate calculated on daily average in						
Hospital ...	...	...	2.23%	...	...	1.13%

The sick rate which was 4.09% in 1924 has gradually decreased to 1.13% in 1926.

11. Table of monthly admissions into the two Infirmaries, total stay and average stay per patient for the years 1925 and 1926 :—

1925					1926				
Months		M.	F.	T.	Months		M.	F.	T.
January	...	25	17	42	January	...	28	15	43
February	...	20	7	27	February	...	16	8	24
March	...	17	13	30	March...	...	10	19	29
April	...	15	9	24	April ...	...	16	12	28
May	...	20	17	37	May ...	...	15	18	33
June	...	9	12	21	June ...	...	10	8	18
July	...	16	8	24	July ..	...	11	8	19
August	...	17	17	34	August	...	10	5	15
September	...	20	12	32	September	...	15	12	27
October	...	12	5	17	October	...	10	3	13
November	...	14	16	30	November	...	11	4	15
December	...	25	5	30	December	...	9	5	14
Total	...	210	138	348	Total ..	...	161	117	278
Total stay in days...		2,289	1,566	3,855	Total stay in days	...	1,373	1,151	2,524
Average stay per					Average stay per				
patient	...	10.90	11.34	11.07	patient	...	8.52	9.83	9.07



Like the sick rate, the total average stay in the Infirmaries, per patient, has also shown a marked decrease. Whereas for 1923 it was 22.05 days per patient, the corresponding figure for 1926 was 9.07.

12. Monthly admissions into both Infirmaries for the commoner diseases :—

Diseases	January	February	March	April	May	June	July	August	September	October	November	December	Total
Epilepsy ...	5	4	3	9	2	3	2	0	6	0	0	0	34
Influenza ...	7	6	0	1	5	3	5	4	1	4	0	2	38
Malaria ...	2	4	5	3	4	0	2	2	0	0	2	1	25
Abscess ...	2	1	4	1	1	0	2	1	2	1	0	1	16
Debility and asthenia ...	1	0	1	0	4	1	1	3	1	1	0	1	14
Bronchitis ...	2	1	1	1	0	0	0	0	1	0	0	1	6
Amoebic dysentery	1	1	1	0	3	2	1	1	4	1	0	2	17
Boils ...	0	0	0	0	0	0	0	1	1	0	0	0	2
Asthma ...	0	0	0	0	1	1	0	0	4	2	1	1	10
Acute gastritis ...	0	0	2	0	0	0	0	0	0	0	0	0	2
Pneumonia ..	1	0	0	0	2	1	0	1	2	1	1	1	10
Phthisis ...	0	1	3	1	0	0	0	0	0	0	0	0	5

Admissions for epilepsy fell from 56 in 1925 to 34 during the year. This decrease may be attributed partly to better supervision and nursing entailing regularity in care and treatment and partly, to the beneficial effect of Luminal on a good number of epileptics.

Admissions for malaria fell slightly from 27 in 1925 to 25 in 1926 ; on the other hand those for Influenza rose from 27 in 1925 to 38 in 1926. Dysentery, too, accounted for a rise in admissions from 13 in 1925 to 17 this year.

#### ESCAPES, VIOLENCE &c.

13. 4 escapes and 1 fatal accident occurred during 1926. Of the 4 escapes, 2, who were women, were captured and returned to hospital a few hours after their absence had been first noticed. A third, a criminal mental patient, absconded on 5.4.26, and after living for some weeks in the region of Vallée des Prêtres, was captured by the Police and brought back to hospital on 19.5.26.

The fourth escape left hospital on 21.8.26 and is still at large.

On 19.12.26 a male epileptic suddenly climbed up a tree, fell down and fractured his skull. He died an hour after the accident. A coroner's inquest was held on the case at the District Court of Rose Hill.

There were no cases of suicide or homicide during the year.

#### GENERAL OBSERVATIONS

##### STAFF

14. Consequent upon the amalgamation of the Barkly Mental Branch Wards with the Mental Hospital on 1.7.26, Warders A. Pommerol and J. Chamroo were transferred from the Poor Law Department to the staff of the Mental Hospital. On 31.12.26 Gate Keeper E. Guillard retired from the service and was replaced by Mr. L. Levallant, Night Gate Keeper, Civil Hospital. During the year Warder H. Jean Louis and Nurse K. Coorbanally were dismissed from the service. Warder R. Moutia resigned on 30.6.26 and was replaced by Mr. J. David Sanitary Guard.

Four new posts of Warder at salary Rs. 1,200-120-1,680 p.a. were created and filled by Warders A. Fricot, A. Seetal, P. J. Arouff and H. N. Cimiotti. Warder H. N. Cimiotti, from Rodrigues, assumed duty on 25.1.26. Student R. Miniamah assumed duty as acting Warder on 22.12.26 vice Warder Arouff transferred to Victoria Hospital.

Messrs. G. E. F. Mason, J. H. E. Létimier and D. Davis were confirmed as Steward and Accountant, Head Attendant, and Dispenser and Storekeeper, respectively.

The female staff was increased by 2 nurses and 13 servants to cope with the extra work resulting from the taking over of the Barkly Branch Wards.

Assistant Matron Haskett, Nurses Rose, Y. Michel and Berthelot were confirmed in their appointments.

##### BUILDINGS AND EQUIPMENT

15. —*Mental Hospital.*—A new kitchen has been built. An administrative block containing a pharmacy, an operating theatre, an anaesthetist's room, a sterilizing room, a pathological laboratory and various offices, is nearing completion. Work on the extension and alteration of the male Infirmary and its conversion into an Admission hospital is proceeding.



16. *Barkly Annexe*.—On 1.7.26 the Barkly Asylum Mental Branch wards were taken over from the Poor Law Department and incorporated with the Mental Hospital. A new kitchen is being built for the annexe and extensive repairs to some of its wards were undertaken during the year. It is proposed to build a new store and office to replace the building which has been handed over to the Department of Agriculture. Parts of the special baths and water-heating plant ordered from England in 1925, have now been received. Station-boxes for recording clocks have been installed in all the Wards thus rendering night supervision more effectual.

#### TREATMENT

17. It is still to be regretted that incipient cases of mental disease are not brought up early enough for treatment; much valuable time is thus wasted, making the cure of these cases more difficult and prolonged. Among the better educated classes the stigma connected with mental disease, the fear of certification and the legal formalities and disabilities connected therewith, are factors in part responsible for keeping the mentally afflicted away from institutional care and treatment. In order to get over some of these difficulties, it is proposed when proper accommodation becomes available, to seek authority for treating incipient and recoverable cases on a voluntary basis. The voluntary boarder will be admitted for a certain number of months without the usual certificates, and may leave the establishment by giving, in writing, short notice of his desire to do so, provided the Medical Superintendent considers that this can be done without detriment to the patient or others.

In addition to the various therapeutic measures mentioned in last year's report, special attention was paid during the year to the treatment of cases of mental disease due to, or complicated by syphilis. Intravenous injections of Stabilarisan (Boots) intramuscular injections of Bismuth preparations were used with variable results. Two cases of epilepsy, with syphilis as a prominent etiological factor, did very well under this treatment. Luminal combined with bromides benefited many of our epileptic cases. Focal infection being frequently associated with mental disorder, particular attention was paid to the detoxication of patients by such means as the removal of toxi foci, saline purges, Dimol, milk diet with, so far, encouraging results. Hormone therapy was tried in a few cases of dementia praecox with no appreciable result.

18. *Occupational treatment*.—Workshops are not yet available. During the year a daily average of 23 male patients, mostly Indians, attended to the vegetable gardens. All the laundry of the hospital was done by female patients, and this, together with ward work, kitchen work, darning, the upkeep of the hospital grounds, gave employment daily to an average of 63 female and 99 male patients. The estimated value of the work done by patients during the year was Rs. 19,449.62, compared with Rs. 17,159.91 for 1925.

19. *Recreation*.—In 1926 the Police Band played once a month at the hospital. Four "treats" were given consisting of cakes, fruit, lemonade and other delicacies. These were followed by cinematograph performances during which the gramophone played. Gramophone music is often played during the week and always on Sundays. Forty-three new gramophone records were bought during the year. Cards, draughts, dominoes, chess, lotto are favourite games. A small number of the male patients played football on the grounds of the hospital. Illustrated and other periodicals were freely distributed. The piano in the female department was used by patients and their friends. On 4.5.26 seventy-six patients went for the day, in chars-a-bancs, to Pamplemousses gardens where they picknicked and thoroughly enjoyed themselves.

20. *Law Changes*.—G.N. No 301, dated 24.12.26, amending the Diet Scale of the hospital, came into force during the year.

21. *Visits*.—On 6.8.26 His Lordship the Bishop of Mauritius visited the hospital. The Honourable the Colonial Secretary called at the Mental Hospital on 21.9.26 and inspected the Barkly Branch wards. The Central Board of Commissioners of Lunacy paid twelve monthly visits. Two boards of survey were held. During the year mass was said on the first Friday of every month and an average of 53 patients attended on each occasion. The question of enlarging the Roman Catholic chapel is under consideration. Father La Chapelle attends most assiduously to the religious needs of our Roman Catholic patients. Apart from his visits for Mass, Confession and Extreme Unction he also gives a general absolution on the third Wednesday of every month.

The Anglican Minister paid several visits during the year and interviewed the dozen patients that belong to the Church of England.

#### CONCLUSION

22. To conclude, I wish to thank the Honourable Medical Director and the Members of the Central Board for their valuable assistance in helping me to improve the welfare of our patients.

Beau Bassin,  
22.3.27.

J. D. DYSON,  
M.B.B.S. London., D.P.M.  
Medical Superintendent, Mental Hospital.







